

AMENDMENTS TO THE CLAIMS

The following list of claims shows all claims that are, or ever were, in the instant application. This list will replace all other versions, and listings, of claims in the application:

Listing of claims:

1-44 (canceled).

45 (previously presented). A method for augmenting at least one function of a targeted biologic structure, which comprises targeting the biologic structure by inducing acoustic resonance in the biologic structure.

46 (previously presented). The method of claim 45, wherein said inducing comprises applying at least one resonant acoustic frequency of the biologic structure.

47 (previously presented). The method of claim 46, wherein said applying comprises applying at least a portion of an acoustic signature of the biologic structure.

48 (previously presented). The method of claim 46, wherein said applying comprises applying at least one substantially complete acoustic signature of the biologic structure.

49 (previously presented). The method of claim 45, wherein said inducing comprises applying at least one resonant acousto-EM energy of the biologic structure.

50 (previously presented). The method of claim 49, wherein said applying comprises applying at least a portion of an acousto-EM signature of the biologic structure.

51 (previously presented). The method of claim 49, wherein said applying comprises applying at least one substantially complete acousto-EM signature of the biologic structure.

52 (previously presented). The method of claim 46, wherein said applying occurs at a sufficient power intensity to augment at least one function of the biologic structure, said at least one function being selected from the group of functions consisting of growth, reproduction, regeneration, embryogenesis, metabolism, fermentation, germination, oxidation or reduction activity and wound healing.

53 (previously presented). The method of claim 49, wherein said applying occurs at a sufficient power intensity to augment at least one function of the biologic structure, said at least one function being selected from the group of functions consisting of growth, reproduction, regeneration, embryogenesis, metabolism, fermentation, germination, oxidation or reduction activity and wound healing.

54 (previously presented). The method of claim 45, wherein said biologic structure comprises at least one structure selected from the group of structures consisting of organs, and organisms.

55 (previously presented). The method of claim 45, wherein said biologic structure comprises at least one structure selected from the group of structures consisting of virus, bacteria, fungi, tissue masses, worms, arthropods, chitins, plants, animals, microorganisms, multicellular organisms, protozoa, liver, muscle, feet, brain, kidney, spleen, blood, lung, lens of eye, aqueous humor, vitreous humor, animal cell, plant cell, proteins, molecules, cell wall, capsule, spore, pili, plasma membrane, organ, portions of structures, components of structures, flagellum, cytoplasmic inclusion body, basal body, parasite, appendages, skin, shell, egg, cement/cement plate, bone, DNA, RNA, carbohydrates, lipids, lipopolysaccharides, glycolipids, glycoproteins, proteoglycans, chloroplasts, mitochondria, endoplasmic reticulum, endotoxins, exotoxins, proteases and ligands for host cell receptors.

56 (previously presented). The method of claim 46, wherein said biologic structure comprises at least one structure selected from the group of structures consisting of virus, bacteria, fungi, tissue masses, worms, arthropods, chitins, plants, animals, microorganisms, multicellular organisms, protozoa, liver, muscle, feet, brain, kidney, spleen, lung, lens of eye, aqueous humor, vitreous humor, plant cell, proteins, molecules, cell wall, capsule, spore, pili, plasma membrane, organ, portions of structures, components of structures, flagellum, cytoplasmic inclusion body, basal body, parasite, appendages, skin, shell, egg, cement/cement plate, bone, DNA, RNA, carbohydrates, lipids, lipopolysaccharides, glycolipids, glycoproteins, proteoglycans, chloroplasts, mitochondria, endoplasmic reticulum, endotoxins, exotoxins, proteases and ligands for host cell receptors.

57 (previously presented). The method of claim 49, wherein said biologic structure comprises at least one structure selected from the group of structures consisting of virus, bacteria, fungi, tissue masses, worms, arthropods, chitins, plants, animals, microorganisms, multicellular

organisms, protozoa, liver, muscle, feet, brain, kidney, spleen, lung, lens of eye, aqueous humor, vitreous humor, plant cell, proteins, molecules, cell wall, capsule, spore, pili, plasma membrane, organ, portions of structures, components of structures, flagellum, cytoplasmic inclusion body, basal body, parasite, appendages, skin, shell, egg, cement/cement plate, bone, DNA, RNA, carbohydrates, lipids, lipopolysaccharides, glycolipids, glycoproteins, proteoglycans, chloroplasts, mitochondria, endoplasmic reticulum, endotoxins, exotoxins, proteases and ligands for host cell receptors.

58 (previously presented). A method for augmenting at least one function of a targeted biologic structure, which comprises targeting the biologic structure by inducing acoustic resonance in the biologic structure with select frequencies that augment the targeted biologic structure but have no substantial deleterious effect on nearby, non-resonating structures.

59-83 (canceled).

84 (previously presented). The method of claim 45, further comprising detecting at least one signature of the targeted biologic and comparing said at least one signature to at least one reference signature.

85-104 (canceled).

105 (previously presented). A system for inducing targeted acoustic resonance in a biologic structure to augment at least one function of the biologic structure comprising:

- a) means for generating at least one targeted acoustic signal;
- b) means for transmitting said at least one targeted acoustic signal to the biologic structure; and
- c) means for controlling the power level of said at least one targeted acoustic signal to augment at least one function of the biologic structure.

106-121 (canceled).

122 (previously presented). A method for augmenting the growth of an aquatic species comprising:

- a) determining at least one first resonant frequency of said aquatic species; and
- b) applying said at least one first resonant frequency at a sufficient power intensity to cause said augmenting to occur.

123 (previously presented). The method of claim 122, wherein said determining comprises measuring acoustic resonance frequency profiles.

124 (previously presented). The method of claim 123, wherein said measuring comprises transmitting acoustic energy to said aquatic species with at least one transducer.

125 (previously presented). The method of claim 124, wherein said contacting comprises placing said aquatic species adjacent said at least one transducer and scanning said aquatic species with a range of acoustic frequencies.

126 (previously presented). The method of claim 122, further comprising determining at least one second resonant frequency of said aquatic species; and applying said at least one second resonant frequency at a sufficient power intensity to cause further augmenting to occur.

127 (previously presented). The method of claim 126, wherein said at least one second resonant frequency is applied at a later point in time after said aquatic species has grown in size.

128 (previously presented). The method of claim 122, wherein said applying comprises placing at least one transducer in communication with said aquatic species.

129 (previously presented). The method of claim 128, wherein said at least one transducer is placed in at least one wall of an enclosure that contains said aquatic species.

130 (previously presented). The method of claim 122, wherein said augmenting the growth comprises at least one of increasing survivability and increasing growth rate.

131 (previously presented). The method of claim 122, wherein said augmenting comprises increasing survivability and increasing growth rate.

132 (previously presented). A method for augmenting the growth of an aquatic species comprising:

- a) determining at least one first acoustic resonance frequency profile of said aquatic species;

- b) applying at least a portion of said first acoustic resonance frequency profile at a sufficient power intensity to cause said augmenting to occur;
- c) determining and applying at least one second acoustic resonance frequency profile by substantially repeating the steps a) and b) above at a point in time after said aquatic species has grown in size; and
- d) repeating step c) to achieve additional augmentation of said aquatic species.

133 (previously presented). The method of claim 122, wherein said aquatic species comprises at least one fish.

134 (previously presented). The method of claim 133, wherein said at least one fish comprises small-fry.

135 (previously presented). The method of claim 122, wherein said at least one fish comprises a plurality of fish contained within an enclosure.

136 (previously presented). A method for augmenting the growth of a plant species comprising;

- a) determining at least one first resonant acoustic frequency of said plant species; and
- b) applying said at least one first resonant frequency at a sufficient power intensity to cause said augmenting to occur.

137 (previously presented). The method of claim 136, wherein said determining comprises utilizing a frequency sweeping process to identify said at least one first resonant frequency.

138 (previously presented). The method of claim 137, wherein said frequency sweeping process comprises utilizing at least one transducer and at least one signal generator.

139 (previously presented). The method of claim 136, wherein said augmenting the growth comprises at least one of enhancing germination and increasing growth rate.

140 (previously presented). The method of claim 136, wherein said augmenting the growth comprises enhancing generation and increasing growth rate.

141 (previously presented). The method of claim 136, wherein said applying comprises placing at least one transducer in communication with said plant species.

142 (new): The method of claim 45, wherein said inducing comprises applying at least one substantially complete acousto-EM signature of the biologic structure and wherein said augmenting comprises growth of the biologic structure.